

AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (currently amended) A viscosity modifier for lubricating oil comprising an ethylene/ α -olefin copolymer (B) composed of:

(i) ethylene,

(ii) an α -olefin of 3 or more carbon atoms, and

(iii) a higher α -olefin of 4 to 20 carbon atoms wherein the carbon number of (iii) is larger than that of (ii) by one or more, and

the ethylene/ α -olefin copolymer (B) has the following properties (b-1) and (b-2):

(b-1) a content of ethylene (i) is in the range of ~~40~~ 60 to 80 % by weight, a content of the α -olefin of 3 or more carbon atoms (ii) is in the range of 15 to ~~59~~ 39 % by weight, and a content of the higher α -olefin of 4 to 20 carbon atoms (iii) is in the range of 0.1 to ~~25~~ 20 % by weight with the proviso that the sum is 100 % by weight; and

(b-2) a weight-average molecular weight (Mw) in terms of polystyrene as measured by GPC is between 80,000 and 400,000;
and

(b-3) the ethylene/ α -olefin copolymer (B) has an intensity ratio D of $S_{\alpha\beta}$ to $S_{\alpha\alpha}$ ($S_{\alpha\beta}/S_{\alpha\alpha}$) determined by a ^{13}C -NMR spectrum of 0.5 or below.

2. (original) The viscosity modifier for lubricating oil as claimed in claim 1, wherein the ethylene/ α -olefin copolymer (B) has the property (b-3):

(b-3) a ratio of M_w/M_n (M_n : number-average molecular weight) is 2.4 or less.

3. (original) The viscosity modifier for lubricating oil as claimed in claim 1 or 2, wherein the ethylene/ α -olefin copolymer (B) has the property (b-4):

(b-4) a melting point (T_m) as measured by DSC is 60°C or lower.

4. (previously presented) The viscosity modifier for lubricating oil as claimed in claim 1, wherein the α -olefin of 3 or more carbon atoms (ii) is propylene.

5. (previously presented) The viscosity modifier for lubricating oil as claimed in claim 1, wherein the carbon number of the higher α -olefin (iii) is in the range of 6 to 20.

6. (previously presented) The viscosity modifier for lubricating oil as claimed in claim 1, wherein the ethylene/ α -olefin copolymer (B) contains (i) ethylene in an amount of 60 to 80 % by weight, (ii) an α -olefin of 3 or more carbon atoms in an amount of 18 to 34 % by weight, and (iii) a higher α -olefin of 4 to 20 carbon atoms in an amount of 0.5 to 20 % by weight.

7. (currently amended) A lubricating oil composition comprising:

(A) a lubricating oil base, and

(B) an ethylene/ α -olefin copolymer in an amount of 1 to 30 % by weight, which copolymer is comprising:

(i) ethylene,

(ii) an α -olefin of 3 or more carbon atoms, and

(iii) a higher α -olefin of 4 to 20 carbon atoms wherein the carbon number of (iii) is larger than that of (ii) by one or more, and

the ethylene/ α -olefin copolymer (B) has the following properties (b-1) and (b-2):

(b-1) a content of ethylene (i) is in the range of ~~40~~ 60 to 80 % by weight, a content of the α -olefin of 3 or more carbon atoms (ii) is in the range of 15 to ~~59~~ 39 % by weight, and a content of the higher α -olefin of 4 to 20 carbon atoms (iii) is

in the range of 0.1 to ~~25~~ 20 % by weight with the proviso that the sum is 100 % by weight; and

(b-2) a weight-average molecular weight (M_w) in terms of polystyrene as measured by GPC is between 80,000 and 400,000; and

(b-3) the ethylene/ α -olefin copolymer (B) has an intensity ratio D of $S_{\alpha\beta}$ to $S_{\alpha\alpha}$ ($S_{\alpha\beta}/S_{\alpha\alpha}$) determined by a ^{13}C -NMR spectrum of 0.5 or below.

8. (currently amended) A lubricating oil composition comprising:

(A) a lubricating oil base,

(B) an ethylene/ α -olefin copolymer in an amount of 0.1 to 5 % by weight, which copolymer is comprising:

(i) ethylene,

(ii) an α -olefin of 3 or more carbon atoms, and

(iii) a higher α -olefin of 4 to 20 carbon atoms wherein the carbon number of (iii) is larger than that of (ii) by one or more, and

(C) a pour-point depressant in an amount of 0.05 to 5 % by weight;

wherein the ethylene/ α -olefin copolymer (B) has the following properties (b-1) and (b-2):

(b-1) a content of ethylene (i) is in the range of ~~40~~ 60 to 80 % by weight, a content of the α -olefin of 3 or more carbon atoms (ii) is in the range of 15 to ~~59~~ 39 % by weight, and a content of the higher α -olefin of 4 to 20 carbon atoms (iii) is in the range of 0.1 to ~~25~~ 20 % by weight with the proviso that the sum is 100 % by weight; and

(b-2) a weight-average molecular weight (M_w) in terms of polystyrene as measured by GPC is between 80,000 and 400,000; and

(b-3) the ethylene/ α -olefin copolymer (B) has an intensity ratio D of $S_{\alpha\beta}$ to $S_{\alpha\alpha}$ ($S_{\alpha\beta}/S_{\alpha\alpha}$) determined by a ^{13}C -NMR spectrum of 0.5 or below.

9. (original) The lubricating oil composition as claimed in claim 7 or 8, wherein the ethylene/ α -olefin copolymer (B) has the property (b-3):

(b-3) a ratio of M_w/M_n (M_n : number-average molecular weight) is 2.4 or less.

10. (previously presented) The lubricating oil composition as claimed in claim 7, wherein the ethylene/ α -olefin copolymer (B) has the property (b-4):

(b-4) a melting point (T_m) as measured by DSC is 60°C or lower.

11. (previously presented) The lubricating oil composition as claimed in claim 7, wherein the α -olefin of 3 or more carbon atoms (ii) is propylene.

12. (previously presented) The lubricating oil composition as claimed in claim 7, wherein the higher α -olefin (iii) has 6 to 20 carbon atoms.

13. (previously presented) The lubricating oil composition as claimed in claim 7, wherein the ethylene/ α -olefin copolymer (B) contains (i) ethylene in an amount of 60 to 80 % by weight, (ii) an α -olefin of 3 or more carbon atoms in an amount of 18 to 34 % by weight, and (iii) a higher α -olefin of 4 to 20 carbon atoms in an amount of 0.5 to 20 % by weight.